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FREEDOM MEDICINE, INC.

EVALUATION REPORT

March 1989

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FREEDOM MEDICINE EVALUATION REPORT

Michael Davidson, MD, MPH and Wendy Craytor, MBA, MPH were asked by Freedom Medicine to evaluate the organization as a whole during the month of February 1989. The following report presents the team's observations and recommendations as well as a summary of a brainstorming session on future options conducted with Freedom Medicine staff.

The Evaluation Team. Michael Davidson is a medical epidemiologist with the Centers for Disease Control's Arctic Investigations Laboratory in Anchorage, Alaska. Dr. Davidson was temporarily assigned to CDC's International Program Office for the period of the evaluation. Dr. Davidson is an internist trained in infectious diseases and epidemiology and has worked in medical education.

Wendy Craytor is a health services specialist on leave for the evaluation period from her position as Coordinator of the State of Alaska's AIDS/STD Program. Ms. Craytor has education and experience in program development and management as well as experience with designing, funding, implementing, and evaluating international training and service programs.

Both Dr. Davidson and Ms. Craytor were familiar with Freedom Medicine prior to undertaking this assignment. Dr. Davidson worked with Freedom Medicine in Peshawar for three months in 1985-86 when the organization was first established. He was involved in planning the initial curriculum design and student selection examination. Ms. Craytor was party to the organization's initial grant proposal and served as a member of the Freedom Medicine Board in 1986-87.

Evaluation Purpose. Freedom Medicine requested assistance with an evaluation for several reasons. The organization had been evaluated by a three-person team of AID contractors in mid-1987, early in the project's implementation. Since that time, Freedom Medicine had experienced major internal changes and significant growth in human and physical resources. No formal evaluation had subsequently been conducted to assess the organization's response to the initial evaluation's recommendations.

Freedom Medicine's Directors viewed the evaluation as a necessary step in assessing current status as well as a prelude to defining new directions. They anticipated that radical changes would occur in the government of Afghanistan after the Russian troops withdrew in February 1989, and that these changes would affect the training program's overall purpose and curricular content.

Methods. The evaluation was conducted between February 7 and March 2, 1989. Freedom Medicine facilities in Peshawar and Thal were site-visited and key staff were interviewed. One Chitral Clinic staff member was interviewed although a site visit was

precluded by transportation problems related to winter weather. No clinics inside were visited due to USAID restrictions on travel inside Afghanistan. The Home Office staff member in Washington, D.C. was interviewed by telephone upon the evaluation team's return to the U.S. One team member (WSC) had also had extensive interaction with the Home Office and this staff member when the office was located in Honolulu.

In addition to Freedom Medicine training and administrative staff, a number of individuals working with other medical/training organizations in Peshawar were interviewed. Their perceptions of Freedom Medicine, the evolving training and health care needs in Afghanistan, and the role for organizations such as Freedom Medicine all contributed to the evaluation team's understanding of the environment in which the organization has been and will be operating. These individuals and their organizational affiliations are listed in Appendix I.

Evaluation Funding. Evaluation team travel and housing/subsistence were funded by Freedom Medicine. Dr. Davidson's salary was paid by the Centers for Disease Control. Ms. Craytor volunteered her services.

Evaluation Document. The following document is structured in a manner similar to the 1987 USAID evaluation document in order to facilitate comparisons between findings at the two points in time. Major sections include: (1) an overview of Freedom Medicine; detailed descriptions of and recommendations about (2) the organization's structure, function, and facilities, (3) the educational component, (4) potentials for future activities, and (5) overall recommendations. Supplemental information on certain program aspects referenced in the main document is included in the appendices.

OVERVIEW OF FREEDOM MEDICINE

Organizational Purpose. Freedom Medicine was founded by Gay-LeClerc and Bob Brenner in 1983 and incorporated in 1985 to train high quality paramedical personnel to assist in disaster-stricken areas.

Organizational Structure. Freedom Medicine is a nonprofit entity (501.c.3) incorporated in the state of Hawaii. It is governed by a voluntary Board of Directors of four people, three of whom are located in the U.S. and one in Pakistan. The Board theoretically hires and supervises the Project Director who is, in turn, responsible for Freedom Medicine operations.

Operations. Afghanistan is the sole focus of Freedom Medicine programs at this time, although the possibility of expansion to other sites has been discussed by the Board and Directors for several years. Program operations are carried out in the Home Office in Washington, D.C., training and administrative facilities

in Pakistan, and paramedic and itinerant training clinics in Afghanistan.

The training program prepares paramedical personnel to establish and run medical clinics inside Afghanistan. All evidence indicated that the program is successfully graduating well-prepared paramedics who are returning to work inside Afghanistan as planned.

The primary training site is located in Thal with a secondary site in Chitral, both in NWFP, Pakistan. A dental training rotation is provided through an arrangement with a private dental clinic in Peshawar, NWFP, Pakistan. Temporary field clinics have periodically been established near combat areas to provide training for paramedics and medical care to mujahideen. Sites have included Gabor in Pakistan as well as Jaji and, currently, Jalalabad, in Afghanistan. All training sites serve their surrounding communities as an integral part of their operations.

A total of 102 clinics have been established by graduated paramedics inside Afghanistan. Freedom Medicine resupplies these clinics regularly and provides paramedics with refresher training at the time of resupply. Clinics inside Afghanistan are monitored via the paramedic's records ("green books") and site visits by trained monitors.

External Environment. The climate in which Freedom Medicine operates and the conditions for which its students have been trained are changing as the political situation in Afghanistan changes. The organization is attempting to anticipate and address these changes. The withdrawal of Russian troops does not presuppose the rapid return of refugee populations. Fighting continues between the mujahideen and Afghan government troops, and many areas of Afghanistan remain unsuitable for or hazardous to returning civilians due to the booby traps and land mines left there. Afghan parties in Pakistan (the Alliance) have been meeting to negotiate a future government, but the likelihood of a stable agreement among all factions is questionable.

Although the situation inside is still unstable, plans must be developed now to meet the health care needs of returning refugees, displaced persons, and those who have managed to remain in their home areas. The health care infrastructure which existed in Afghanistan before the war has essentially been destroyed, and a new system must be constructed. Returning refugees are likely to have developed different health care delivery expectations during their time outside the country. Changes in health care needs and demands in their service areas will affect training and retraining needs for mid-level health care workers.

Much of the funding for health care systems reconstruction will come from sources external to Afghanistan. Relationships between Afghanistan's new government (whatever it may be), governments providing aid, and private voluntary organizations (PVOs) have yet to be established. The changing political

situation will also bring changes in relationships between PVOs and funding sources, and among the various PVOs.

This is too large in
Funding. Freedom Medicine receives funds from several independent sources: USAID (approximately 60% of the total), UNICEF (maternal and child health project in Chitral), and donations (cash and in-kind). This diversity provides a measure of stability.

But Not Enough

ORGANIZATIONAL STRUCTURE, FUNCTION, AND FACILITIES

*Self
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Governance

As described in the overview, Freedom Medicine is governed by a four-person Board of Directors including:

President: Gay-LeClerc Brenner, Freedom Medicine Project Director, Peshawar

Vice President: Tom Durant, Assistant Administrator, Mass General Hospital, Boston

Treasurer: Jenik Radon, international law attorney in private practice, New York City

Howard Green, attorney in private practice, Honolulu

The Board meets periodically, generally via conference call, and relates most frequently to the Project Director, often through the Home Office staff. The Board appears to function as a sounding board, a reservoir of certain types of expertise, and a policy-making entity. The Board is called upon infrequently and has delegated absolute operating authority and considerable latitude in policy matters to the Project Director.

This is understandable given the genesis of the organization and the difficulties in communicating between widely-dispersed Board members and remote Project locations. The lack of active Board involvement is, however, a lost opportunity for Freedom Medicine in key policy areas. An active Board could also serve a potentially powerful fundraising function in support of the organization's activities.

Recommendations.

1. The Board's involvement in policy formulation and interpretation will need to become more directive if Ms. Brenner is ever replaced as Project Director.

2. A review, by and with the Board members, should be undertaken to assess their roles and involvement. Board participation in fundraising may, in the absence of staff devoted to that effort, be a necessary addition. Appropriate supportive materials should be developed through the Home Office if the Board is to solicit funds.

Funding

USAID has provided training project support since 1986. Annual grant proposals and quarterly progress reports are required. The current grant provides \$1.125 million for the 12-month period ending June 30, 1989. A tentative USAID budget of \$1.4 million is projected for Freedom Medicine for 1989-90. Some activities are constrained by the fact that AID funds cannot now be used to support American personnel inside Afghanistan. This restriction may soon be lifted. The AID Project Officer has encouraged development of activities inside Afghanistan in the upcoming year and has indicated AID will not support program expansion or capital improvements to facilities in Pakistan. *Supportive*

UNICEF has funded Freedom Medicine to conduct a maternal child research and health education project in refugee camps in Chitral. UNICEF provided a grant of \$30,195 to fund a three-month research phase and a three-month program development phase beginning in June 1988. The grant requires initial- and final phase reports, and there may be some possibility of subsequent funding to implement a program based on this developmental work.

At this point in time, the UNICEF project is on hold, pending two things: (1) submission of the first phase report by Isabel Hemming, a consultant to Freedom Medicine, and (2) the presence of a female translator in Chitral to assist the MCH nurse practitioner to field test and refine educational materials for the project's second phase. It has proven exceedingly difficult to find an appropriate female translator but it is essential in gaining access to Afghan women.

Donations have included substantial in-kind contributions of supplies, equipment, and medicines from the U.S. government and private organizations such as the Swedish Committee, as well as limited monetary donations from individuals. Donations valued at approximately \$18,000 were received in 1987 from the Swedish Committee alone.

Increasing donations from private sources would increase flexibility in the uses to which funds could be put.

Recommendations.

1. Structure consultant contracts so that financial or other support is dependent upon receipt of required deliverables, whenever possible.

2. Continue to work towards a broader funding base, decreasing reliance on USAID or any other single source. Development of fundraising capabilities is one avenue of approach.

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Organizational Context

Internal Environment. Freedom Medicine has been through a several-year period of dramatic growth and development. The organizational structure is in flux due to the demands of this rapid growth, pressures exerted by personnel changes, and changes in the external environment which are totally beyond organizational control. The organization is evolving to deal with new issues and to deal with old issues in different ways.

In mid-February 1989 while the evaluation team was on site, most of the physicians (6) who provided the training (in Thal, the new Camp Manager, and two translators (all Afghan) abruptly resigned after a disagreement with the Project Director. This placed considerable strain on the training program although the remaining expatriate and Afghan staff carried on with no interruption while new Afghan physicians were recruited and oriented.

The disgruntled physician group actively tried to discredit the program shortly after their walkout. They were rumored to have made a number of false but potentially damaging allegations. This situation mirrors an similar incident which occurred on the same day at the International Rescue Committee (IRC) clinic at Hangu (between Peshawar and Thal). This clinic was closed down after its Afghan physicians walked out.

While motives for the Freedom Medicine walkout may have been political, an interview by one evaluation team member (ND) with the departing staff elicited primary complaints of off-site management with a resultant unresponsiveness to major and minor material needs, and conflicts among staff and management personalities. Ongoing communication difficulties between geographically separate facilities were probably significant contributors to the situation.

External Environment. The political environment among the many PVOs providing training and service to Afghans was quite guarded when Freedom Medicine was first established, with little information sharing and cooperation. Reticence about activities related to Afghanistan had a legitimate basis in security concerns, as well as territorial overtones. By the time of the evaluation team's visit, people in the PVOs had become much more cooperative and open about their activities in Afghanistan. Most organizations were positioning themselves to contend for authorization and funding to develop reconstruction programs inside Afghanistan.

The political situation in Pakistan was further complicated by the many factions and agendas involved. Now that the Soviets were no longer a unifying enemy presence, the various factions were positioning themselves for control. Some (allegedly Maoists and religious fundamentalist groups such as Hizb-i-Islami) were reputed to have infiltrated organizations with intent to disrupt them. Some of these groups were alleged to have particular interest in interfering with and discrediting American programs' activities,

potentially including those of Freedom Medicine.

In addition to these considerations, individuals who had recently left Afghanistan may have been communists and were decidedly unwelcome in most organizations. Staff and student selection and retention processes were therefore critical and posed unusual challenges to all PVOs serving Afghans. after
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Organizational Structure and Personnel

The Project Director and key staff had spent considerable time during January 1989 discussing the various tasks which needed to be done, grouping them, and redesigning positions to carry them out. A number of changes were in process. A diagram of the administrative structure in effect during the period of the evaluation visit is presented in Figure 1. Many of the positions shown had recently been established. In many instances, the incumbents had been shifted to these positions from other positions within Freedom Medicine or had had new responsibilities added to their existing position duties.

One characteristic highlighted by Figure 1 is the fact that a very large number of positions report to the Project Director. Guy This may be due in part to the Field Director's absence. Boy This situation was to be addressed by some of the position changes which had been planned.

The 1987 USAID evaluation noted a need for the directors to delegate many administrative tasks. At the time of the site visit, administrative functions were distributed over a large number of individuals, and additional delegation was planned. Delegation of authority appears to have lagged behind the delegation of responsibility. This may be related to some extent to difficulties recruiting experienced staff (see Recruiting section).

The Project Director is the only individual who receives "all" of the information relative to the organization's operations, since key staff report to her. She also receives information from many different sources about changes in the external environment which may affect the organization.

Staff are all very busy with their respective responsibilities and must communicate from geographically separate sites. Routine coordinative meetings among the Project Director and key staff members have been held sporadically. Information sharing is constrained by these situations.

The centralization of information and the vertical nature of its transmission reinforce centralized decision making. In addition to limiting section managers in their work, this situation places excessive demands on the Project Director's time. This creates potentials for unnecessary delays in getting things done if, for example, the Project Director is unavailable for consultation/

approval. Potential problems due to this situation can only be magnified by communication difficulties and geographic separation of facilities.

A description of key administrative personnel and their responsibilities follows, grouped by location.

Peshawar:

The Project Director, Gay-LeClerc Brenner, is responsible for maintaining liaisons with and meeting the requirements of the funding agencies. The Project Director coordinates with the Home Office, congressional personnel, and the Board of Directors and is involved in all policy decisions. At the time of the evaluation team's visit, the Project Director had assumed all of the Field Director's responsibilities in his absence.

Gay-LeClerc is one of Freedom Medicine's co-founders and has also served as Field Director. She is fluent in Persian. She is a U.S. citizen and an attorney, and has been trained as an emergency medical technician. She would like to take some time off from her management responsibilities to pursue further education.

The Field Director, Bob Brenner, has been responsible for all field operations. The Field Director was in Washington, D.C. for the duration of the evaluation visit, recruiting and selecting replacement staff for the Home Office since the current staff member is due to leave by June 1989. He was also meeting with congressional and USAID staff and attended a major conference on Afghanistan. In the Field Director's absence, the Project Director was managing field operations.

Bob is one of Freedom Medicine's co-founders and has also served as Project Director. He is a U.S. citizen, has extensive experience as a fire investigator, and is trained as an emergency medical technician. He would like to create a program similar to the one in Afghanistan in another Southeast Asian area, and has been investigating opportunities for doing so.

The Assistant Project Director, Nancy Jamieson, serves as a liaison with other agencies involved in medical training (PVOs and coordinating committees) and has been serving as the administrative liaison with the various Freedom Medicine training sites. She oversees curriculum development, staff development, Peshawar office management, and overall program development.

Nancy is a U.S. citizen with master's degrees in public health and nursing, and experience in training health care professionals. She is on a one-year contract which runs through September 1989.

The Finance Director, Debbie Fitch, is responsible for accounting for and controlling the organization's funds as well as

for allocating them according to the approved budget. She is creating a computerized database to facilitate financial reporting and projections.

Debbie has been trained and has worked as a medical technologist. She has learned bookkeeping, budgeting, and use of spread sheets in her ten months on the job with Freedom Medicine. She is a U.S. citizen and is scheduled to complete her one-year contract in April 1989.

The Monitoring Coordinator, Bruce Wannell, recruits, hires, trains, and supervises monitors who check the backgrounds and affiliations of prospective students and staff. Monitors also verify the existence of clinics inside Afghanistan, check their personnel and functions, and conduct physical, political, and social assessments of the areas where clinics are located. At the time of the site visit, the monitors had assumed temporary responsibility for student and paramedic supervision as well as for the logistical aspects of resupplying paramedics in the field.

This position was created in July 1988 and Bruce was recruited for it from outside Freedom Medicine. He had previously worked with the organization as a consultant. He has encyclopedic knowledge of the peoples, culture, and country of Afghanistan, is a Persian scholar, and is fluent in Persian. He is a British citizen.

The Management Information Coordinator, Timur Friedman, monitors data related to project activities and prepares various reports, including the quarterly report narratives for USAID. He has been working with the various administrative personnel to understand what kinds of information they need on a regular basis, and has been revamping the manual filing system. He plans to learn d-Base and to enter selected data into a computerized database to facilitate routine and special report generation.

This position was created in January 1989 when Timur assumed these responsibilities. He had previously served as Freedom Medicine's Administrative Assistant (10/87-4/88) and Training Coordinator in Thal (4/88-1/89). He is a U.S. citizen who came to Freedom Medicine upon completing his undergraduate degree in philosophy. He had previously lived in Afghanistan for six years and speaks some basic Persian. He has previous experience as a computer programmer/consultant and in working with a management information system. He is scheduled to complete his second contract in August 1989.

The Transport Manager, Shir Dil, is responsible for scheduling and maintaining all Freedom Medicine vehicles and supervising the nine drivers. (Only authorized Afghan drivers are now allowed to drive Freedom Medicine vehicles, after some difficulties with other drivers. The only exceptions to this rule are the Project Director -- occasionally -- and the current Thal Camp Manager.) At this time the Transport Manager is also responsible for supervising the house/security staff at the main office and three of the other

Freedom Medicine facilities in Peshawar.

The incumbent has been in this position for four months. He has been with Freedom Medicine for three years, as Chitral Camp Manager for twelve months and prior to that time as a driver. He is an Afghan national and a mujahideen.

The Purchasing/Inventory Control Manager, Yaqub, is responsible for establishing and maintaining an inventory of supplies and equipment and for handling purchasing. The Thal facility maintains its own drug inventories (clinic and hospital) and a depot inventory (for resupplying paramedics) for control purposes, and reports them to the Peshawar Office.

This position was created in February 1989. The incumbent previously served as Acting Purchasing Agent for four months. He is a Pakistani citizen and is a pharmacist with experience and training in inventory systems.

The Pakistani Government Liaison, Mansoor Qureshi, was recruited to fill this newly-created part-time position. He has been in the position for one month. Mansoor is familiar with the Pakistani government organization and fluent in local languages and dialects as well as English. He has extensive experience in public relations, management, and administration in both Pakistan and Canada. He has most recently been Public Relations Officer to the Chief Minister of N.W.F.P. He holds dual citizenship in Pakistan and Canada.

Thal:

The Medical and Hospital Director, Dr. Hasham, is responsible for medical and administrative management of the hospital at the Thal training facility. He has just accepted overall medical direction for the paramedic training program in Thal.

Dr. Hasham is an experienced surgeon and an Afghan national. He has been with Freedom Medicine since 1986 and will complete his tenure with the organization if he is allowed to emigrate to the U.S. in July 1989.

The Hospital Administrator, Kaye Jordan, is responsible for hospital operations and staff selection and supervision, under Dr. Hasham's direction. She is a nurse practitioner with many years experience in nurse training. She has been with Freedom Medicine for sixteen months, first as a staff nurse and, for the past eight months, in her current administrative position. She is scheduled to leave the organization in May 1989.

The Training Coordinator is responsible for orienting and scheduling students, training personnel, and the depot of non-medical supplies for paramedics and students. The individual who had been in this position for 1 month, Dr. Qasem, an Afghan physician, resigned in mid-February as part of the "doctor's

walkout." He had previously been Assistant Training Coordinator.

The current Training Coordinator, Gerry Martone, was appointed on a temporary (one-month) basis in mid-February. He is a psychiatric nurse with considerable emergency room experience. He is completing a three-month contract in March as a trainer. He is a U.S. citizen and previously served as a Freedom Medicine trainer in 1988.

The Thal Camp Manager is responsible for the physical plant, security, house staff, and operating expenditures at the Thal facilities. He coordinates activities closely with the Hospital Director and the Training Coordinator. This position was assumed from Lynn McFadden by Waiheed Jan, whom Lynn had trained over a several-year period. When Waiheed Jan resigned in the "doctors' walkout," Lynn re-assumed this position.

Lynn has been with Freedom Medicine since its inception in Pakistan and managed construction of the Thal complex. Before becoming Camp Manager, he was responsible for the physical plant at Thal. He is a U.S. citizen with considerable experience in construction management. He would like to work with the Field Director on a project similar to Freedom Medicine in another location.

Chitral:

The Chitral Camp Manager, Shir Ali, is responsible for facilities, personnel, security, and the operating budget at the Chitral facility. He re-assumed this position in February 1989 after working in logistics/paramedic resupply activities and previously serving as Chitral Camp Manager. An Afghan national, he was an officer in the Afghan Army before the invasion and subsequently held a position of authority under Commander Masoud.

United States:

The Technical Coordinator, Joel Warren, is responsible for managing Freedom Medicine's U.S. operations. He handles ordering, purchasing, and shipping done in the U.S. (including vehicles and equipment). He is responsible for expatriate recruitment, pre-arrival orientation, travel, and visa arrangements as well as managing salaries, benefits, organizational permits, etc. He is also responsible for fund raising and has successfully solicited many in-kind donations.

Joel was part of the initial Freedom Medicine training team. He has been in his current position since October 1987. He has been trained and has had extensive work experience as a lab technician, and has learned about office management on the job. He is scheduled to resign when he can be replaced, tentatively by June 1989.

The Home Office has had an Executive Director position which has been only been filled for relatively short periods. The position is currently vacant.

Proposed Organizational Changes

The following additional positions have been proposed:

A Special Projects Coordinator will oversee the Monitoring Coordinator, Student and Paramedic Coordinators, Management Information Coordinator, and Mission Control Coordinator.

A Student Supervisor will oversee student recruitment, selection, rotation logistics, and those students completing Peshawar rotations.

A Paramedic Supervisor will oversee graduate paramedic training schedules and resupply approval/timing.

A Mission Control Coordinator will oversee resupply operations for paramedic clinics (formerly called Logistics).

An Assistant Mission Control Coordinator will work under the Mission Control Coordinator's supervision.

Recommendations.

1. Relieve the Project Director of her overextended span of control;
2. Decentralize responsibility and authority to the various section managers to facilitate decision making.
3. Provide each section manager with a budget for which s/he is responsible and accountable, and within the boundaries of which s/he has authority to make resource allocations to address operating needs.
4. Institutionalize forums for communication and information sharing among key staff to support decision making. An enhanced management information system will also support decision making.

Organizational Function

Communication. The USAID evaluation noted a need for improved communications, particularly between Pakistan and the Home Office.

The Peshawar office installed a multiline phone system with intercom capabilities in February 1989. Although the evaluation team did not observe office functions without this addition, it should have facilitated communication significantly within the two-section, two-story office facility. A new receptionist had just been strategically placed and was being trained to both answer

incoming calls and screen incoming visitors during this same period. Both functions are very necessary to smooth office operations. The receptionist position requires a good command of English and Persian and an understanding of staff scheduling patterns and preferences.

The Home and Peshawar Offices have telex machines. The machine in Peshawar functions sporadically but is still quite useful. Its capability to provide written documentation of communications is very important. The telex in Peshawar was moved within the office in February to an area where it can be secured and where telex contents can be kept relatively private. This relocation provided a defacto assignment of responsibility for monitoring the machine and incoming messages.

Telecommunication using modems and the MCI Mail Service was established between the Peshawar and Home Offices in December 1988. This service provides rapid, hard-copy communications. It is phone-dependent and is currently being evaluated for its cost-effectiveness.

DHL Express courier service (3-7 days) has been used for important documents traveling between Pakistan and the U.S., but this service is quite costly. Freedom Medicine has limited U.S. diplomatic pouch privileges under the terms of its USAID grant, but this service is quite slow (30 days).

A telefax machine had arrived in Peshawar but was under repair since it was damaged during the approximately six months it was held in Pakistani customs. If it is possible to get the machine functioning, and assuming functioning telephone lines (which are not always dependable), the fax could provide a useful enhancement to Pakistan, Home Office, and governmental communications.

Information passes from Thal to other facilities through hand-carried messages (the "undiplomatic pouch"), which are occasionally misplaced, and by word of mouth. Partially due the fact that few other communication methods are available, staff spend a great deal of time traveling back and forth between Peshawar and Thal -- a tiring three-hour drive each way. A telephone has been requested but has been stalled in the Pakistani phone bureaucracy for nearly six months. When installed, and assuming a fair degree of successful functioning, it should help considerably.

Chitral has a functioning telephone line which facilitates communication greatly with staff in Peshawar. Deliveries are generally hand-carried by people traveling between facilities and are thus weather-dependent.

Recommendations.

1. Regular staff meetings and interaction with geographically separated facilities should be maintained to facilitate communication.

2. Procedures to acknowledge and follow up communications and requests between sites should be established and routinely followed. This has been a particular problem between Pakistan and the Home Office. Communications which include messages for several different people should be screened and messages distributed rapidly to the appropriate recipients.

3. Every effort should be made to expedite phone installation in Thal. In the meantime, all drivers, the receptionist in Peshawar, and the designated information recipient in Thal should be given an orientation to and periodic checks regarding the mechanics and importance of the "undiplomatic pouch".

4. A system for assuring appropriate screening and delivery of telex and MCI messages, and a procedure for acknowledging receipt of messages and materials (especially with the Home Office) should be developed and implemented.

Personnel Systems

Recruitment. The Project Director indicated that USAID observed certain conventions or placed certain limitations on the amounts that Freedom Medicine could pay staff members. Most staff are thus volunteers who receive relatively small monthly stipends, room and board, and travel to and from Pakistan rather than full salaries. This can make it difficult to recruit experienced people and to retain good staff members for extended periods. In spite of this, the organization has attracted committed, talented people who have contributed to a strong training program.

A number of staff members have had little prior training or experience related to their responsibilities at Freedom Medicine. This situation is not unusual in a small, predominantly voluntary organization but can make it difficult for managers to delegate appropriate amounts of responsibility and authority without extended periods of staff development and/or demonstration of competence.

One way in which Freedom Medicine Directors have approached this problem has been to recruit people known to them and in whom they have confidence, even if these individuals have not had much relevant work experience. Another approach has been to shift responsible, competent staff members to different positions in the organization as needs arise. This tends to give staff members a broad understanding of the organization but its application is limited by the length of time staff can stay with Freedom Medicine.

Individuals' lack of experience may tend to slow the work flow and place additional stresses on staff. On the other hand, the situation offers some staff members opportunities to assume greater degrees of responsibility and gain broader work experience than might be the case in a different type of organization.

Expatriate recruitment has been conducted primarily by the Home Office Technical Coordinator. Positions are advertised through agencies which routinely recruit people for work in international health. Selection has been made by the Home Office based on personal or telephone interviews with applicants and references. Communication about what kind of person was needed and what qualities would make someone successful in the position has not always been sufficient to enable the Home Office to make an informed decision and one which met staff needs in Pakistan.

A new approach is being tried where Pakistan staff provide the Home Office with job descriptions, review applications submitted, and use feedback from the Technical Coordinator about telephone interviews with the applicant and references to support decisions.

Recommendations.

1. Improve communication about positions with Home Office. Make recruitment a joint effort and provide feedback to the Home Office about what succeeds and what does not.
2. Define each position's responsibilities and the skills necessary to carry them out. Provide this information to the Home Office to guide application screening, interviews, and reference checks.
3. Explore with USAID alternatives for hiring salaried staff in key positions instead of relying on volunteers.

Orientation. Orientation for new staff provides a critical opportunity to help shape expectations and prepare the new person for the proposed work environment.

Pre-arrival orientation materials include information facilitating visa and travel arrangements as well as a briefing about climate, dress, and "survival" gear. The team assumes, although it was not relevant in their cases, that information about salary amounts and schedules, benefits, and other personnel issues are routinely covered in materials provided to paid volunteers. Confirmed communications with Pakistan about arrival plans should be routine.

One of the Peshawar staff members (Fran Qureshi) has assembled a post-arrival orientation packet containing a number of useful materials, including a map of University Town, a list of common phrases in Persian, and a cultural overview. From what the team could observe, every effort was made to meet arriving volunteers and assign a staff member to guide them to the money changers, tailors, etc. and help them get settled.

Recommendations.

1. Provide prospective expatriot staff with recommendations about immunizations before arrival and information on medical facilities existing in the work area. Advisories about such matters as not drinking the water in Karachi enroute to Freedom Medicine would also be helpful.

Personnel Evaluation. Freedom Medicine's rapid growth and the staff turnover which accompanies a dependence on volunteers have fostered a situation where people have assumed roles and shifted responsibilities according to changes in organizational needs. Rates of pay have as a result tended to be related more to an individual's cumulative experience with Freedom Medicine rather than to levels of responsibility and performance.

The USAID evaluation in 1987 noted the lack of a formalized performance evaluation system. The situation has probably been fostered by the fact that many expatriate staff members are employed for relatively short periods of time. No regular system of performance appraisal yet exists, although the Assistant Project Director has been assigned responsibility for developing necessary personnel systems.

Regular performance appraisal would offer periodic feedback to staff about performance, stimulate improvement, and provide a basis for staff development activities. It would also offer input into job descriptions and facilitate more effective recruitment.

Freedom Medicine has appropriately made deliberate efforts to train and move Afghan staff into positions of increasing authority and responsibility. A performance evaluation system would support these efforts, since many of these staff stay with the organization for long periods of time.

Recommendations.

1. Establish a system whereby staff and supervisors set performance measures and supervisors carry out assessment and feedback regarding performance at regular intervals. Information gathered should be documented and retained for use in reviewing and restructuring systems, as appropriate, and in responding to requests for recommendations or references on staff members after they leave Freedom Medicine.

2. Supervisors should review the job description with the incumbent at the time of the performance assessment. Job descriptions should be updated and altered as appropriate.

3. Conduct exit interviews whenever possible and utilize the information gathered to provide feedback to supervisors and improve overall systems, as appropriate.

4. Relate pay to level of responsibility and performance, given recognition of seniority. Work to establish equity among positions of similar responsibility.

Management Information System. The 1987 USAID evaluation system identified a management-oriented information system as an important need for Freedom Medicine. The data collection effort has been expanded considerably since that time, and has fulfilled the reporting needs identified in the prior evaluation. Efforts to create a hierarchical system to meet management needs on various levels are underway. The manual record-keeping system has been improved and selected data elements have been entered into a computer-based system which can perform limited list and sort functions.

The current Management Information Coordinator is cautious about establishing databases which no one else may be able to access or maintain after he leaves this summer. This is a legitimate concern and a conservative course of action is prudent. Any system utilized should be a simple, well-documented application of commercially-available and vendor-supported software.

Recommendations.

1. Continue to develop a computerized management information system, actively involving section managers and directors. The usefulness of data collected for management decisions and its suitability for inclusion in a computerized database should be carefully scrutinized. Manual systems should be maintained where appropriate.

2. A staff member with appropriate skills should be recruited to carry out this function.

Financial Systems. The Pakistan Finance Director manages finances for all facilities in Pakistan and the Home Office Technical Coordinator manages U.S. finances. Both operate within the constraints of pre-established budgets.

Pakistan financial controls are dependent upon reports and receipts from personnel at the various facilities. The Peshawar Office has a Cash Accountant to assist the Finance Director in overseeing activities. There is an accountant in Thal but no one with this responsibility in Chitral.

The Finance Director travels to Chitral monthly (weather permitting) to reconcile accounts. This allows for the possibility of considerable delays in recognizing potential problems. This situation was addressed during the evaluation team's visit by strictly limiting the amount of funds available to the Chitral Camp Manager in a given period. This provided a type of Camp budget.

The Finance Director has been working to categorize and code expenditure data as a basis for establishing a computerized reporting system. In addition, she has been working to introduce computerized spread sheets for use in budgeting and forecasting.

Recommendations.

1. Financial controls should be strengthened to allow rapid identification of over- and underexpenditures or other deviations from established budget projections.

2. The Finance Director should have bookkeeping assistance adequate to provide her/him with enough time to actively monitor funds and to assist section managers and the Project Director as needed. The spread sheets currently being initiated should offer a valuable tool for evaluating alternative allocations of resources and making projections.

3. Monthly feedback on expenditures (or more often, as needed) should be provided to all individuals with budget responsibility.

4. The classification of expenditures should be carefully reviewed to insure that the coding used will allow sufficient differentiation of expenses by department (for example, Thai Hospital) and by cost center (for example, paramedic training program). Section Managers should have input to this process to insure that the reporting system will adequately assist them in meeting their management needs.

5. An individual with accounting experience and preferably some background in management accounting should be recruited to fill this position.

Facilities

Freedom Medicine maintains facilities to support its programs in three countries: the United States, Pakistan, and Afghanistan.

United States

Home Office. Freedom Medicine's Home Office was initially located in Honolulu. It was moved to Washington, D.C. in August 1988 to facilitate communication with Pakistan as well as communication with funding agencies, congressional personnel, vendors, and prospective volunteers. Proximity to congressional personnel is particularly important since Freedom Medicine's charter stipulates that the organization will concern itself with populations displaced by war or natural disaster. Such assistance efforts are generally funded by governmental agencies (USAID) in accordance with foreign policies in effect at the time.

Fund raising has been a Home Office responsibility, and has been a matter of concern to the Board and Directors for some time. The Technical Coordinator has neither the time nor the expertise to develop and carry out this function effectively. The relatively few monetary donations received have been stimulated primarily by personal appeals to groups and feature articles or media interviews by the Directors. Some promotional materials have been developed, including a good videotape about the training program.

The Home Office is understaffed with professional personnel for the scope of activities it ideally should carry out. Addition of a clerical support position would facilitate work flow.

Pakistan

Freedom Medicine maintains facilities and employs approximately 180 staff in three permanent locations in Pakistan: Peshawar, Chitral, and Thal. Salaries are also paid for several personnel who work in the dental training program at a non-Freedom Medicine site in Peshawar.

Peshawar. Peshawar serves as Freedom Medicine's main administrative base. The main office is located in a duplex at 4A Railway Road in University Town. Most of the PVOs have offices nearby, and it is conveniently located for access to the U.S. consulate and the downtown area. Private transportation is essential for staff and students to be able to get around without undue delays, and is generally provided by Freedom Medicine.

The only training component located in Peshawar is the dental program. This component is located in the private Afghan Dental Clinic run by Dr. Balouch. Freedom Medicine pays three staff salaries and has purchased some dental equipment in exchange for the training and supervision of their students and paramedics.

Peshawar operations involve approximately 50 administrative and support staff (including clerical support, kitchen staff, and security). Freedom Medicine rents four houses in the neighborhood in addition to the office. These facilities house (1) the directors and guests (used frequently for business entertaining), (2) the "doctors' house" for training staff on days off from Thal or Chitral and one administrative staff member, (3) a house for three administrative staff members, and (4) a student hostel. Security/house staff are provided for three of these four locations, and the doctors' house also has a cook. These accommodations are modest by expatriate standards.

Chitral. Freedom Medicine facilities in Chitral have served primarily as a site for continuing paramedic education and development of a maternal and child health health education project funded by UNICEF. There are three buildings and a walled compound in the major complex, a "doctor's house" 5 minutes away, and a depot in town. Most staff, including the three medical personnel, live in tents in the complex. The complex is within walking

distance of town.

There are a number of refugee camps in the Chitral area with a registered population of approximately 40,000 people. Chitral serves as an entry point into northern Afghanistan, and an estimated 200,000 refugees are expected to pass through this area during resettlement. The clinic also serves the resident Pakistani(Chitrali) population.

Staff include an expatriot nurse, an expatriot nurse midwife, an Afghan paramedic who has also been serving as a translator, a camp manager, ten chowkidars (security), two drivers, one of whom doubles as an x-ray technician, a cook and an assistant cook. The facility has its own generator and a telephone. Chitral is approximately eight hours from Peshawar by car when the passes are open, and is also served by an airport (although access is sporadic during the winter).

There is a clinic and a medical holding room as well as an x-ray unit (room). The refugee camps are served by Basic Health Units(BHUs), most of which are run by Medicins Sans Frontieres. Freedom Medicine staff have good working relations with MSF/BHU staff. There is a hospital in the town but it is inconsistently staffed and has been reluctant to accept Afghan patients.,

Thal Hospital and Level of Activity

A 30 bed hospital with a two bed emergency room and operating suite has been in operation since April 1987. The patient wards consist of a 7 bed female ward and 23 bed male ward. There are no facilities for hand washing in either ward. A hospital laboratory provides rudimentary lab data including urinalysis, complete blood count, malaria smears, and stool for occult blood. No T.B. stains are performed and patients are referred to I.R.C. clinics when this is suspected. An X-ray unit provides chest x-rays, intravenous pyelograms, barium enemas, and other routine flat plate films.

The hospital has become progressively busier since it began functioning. During 1988 there were 278 surgical procedures (male to female ratio=3.8:1), 2641 emergency room visits(male to female ratio=3.0:1), and 855 admissions(male to female ratio=2.4:1). It is not known what percentage of patients were Mujahadeen; civilians, including some Pakistanis, in emergencies situations, comprise the bulk of the patients. War wounded are given preference for admission but the majority of surgery is nontraumatic and elective.

Recently acquired equipment included a portable monitor/defibrillator/transthoracic pacemaker that will be used most commonly in the operating room. During the first 100 surgical procedures during 1988, there were 3 intraoperative deaths despite resuscitative efforts. The location of this new equipment in the operating room will be convenient to the emergency room. While present in Thal, the evaluation team made

rounds with the staff and on one occasion assisted with the resuscitation of a patient who had a cardiac stab wound, tamponade, and cardio-pulmonary arrest. The resuscitation procedure went smoothly despite the patient's demise. The recent training staff resignation necessitated a long overdue policy change permitting acute medical emergencies to be seen in the hospital rather than in the clinic though they may not have an obvious surgical condition.

Conclusions. The Thal Freedom Medicine hospital is an adequately staffed, well run facility that functions well with both permanent and expatriot volunteer staff. Some expansion of services seems warranted however, most specifically in the laboratory. Sputum smears for tuberculosis are not performed despite the high frequency of the disease in the patient population, the frequent hospitalization of coughing patients, and a crowded ward situation where nosocomial transmission of tuberculosis is a distinct possibility. Conversations with the medical staff (two surgeons) revealed that the determination of serum electrolytes is the most important missing laboratory parameter.

Recommendations

1. The newly-established policy of evaluating all nonambulatory, acute emergency patients in the Emergency Room rather than have them triaged by a guard should be continued. Newly recruited training staff may be supervised in the emergency room and their abilities more easily assessed.

2. The laboratory should be performing sputum tuberculosis smears since nosocomial transmission of T.B. is possible without performing appropriate testing. Strong consideration should be given for acquiring a desk top analyzer for serum electrolytes to assist in post-surgical and serious medical management of patients.

3. A water supply and wash stand should be placed in a central location in the male ward. Staff hand washing should be stressed.

4. The Advanced Cardiac Life Support course (ACLS) should be offered to Thal staff teaching with some appropriate deletions. The occurrence of intraoperative deaths and the availability of a portable monitor-defibrillator makes this warranted and feasible. The continuation of a surgery program utilizing general anesthesia makes the inclusion of this teaching appropriate and necessary.

EDUCATIONAL COMPONENT

Purposes and Participants

Freedom Medicine has developed a curriculum that integrates creative teaching adjuncts with traditional medical education concepts. Its objective is to train mid-level practitioners to deliver primary care within Afghanistan during war-time conditions with a particular emphasis on first-responder trauma management.

Student selection. Students are all previous Afghan Mujahideen who:

- a. have been selected for training by an effective commander
- b. have fluency and literacy in Persian
- c. have no immediate family in Pakistan
- d. have not have grown up in refugee camps
- e. have passed a physical examination and security check

As part of student selection criteria, the area they will return to serve should be:

- f. an area of need
- g. have a possible supply/referral system
- h. serve both mujahed and civilian population
- i. have the possibility for clinic growth to include a dentist and other assistants

Students are nominated by commanders with affiliations to any of the seven Afghan political parties(Tandzem) as well as nonaligned Shiite parties. They take a written admission examination that tests reading, computational, and general knowledge skills. Applicants are interviewed by two groups of Freedom Medicine staff. Nonmedical monitors who are trained in interview techniques, follow a format of questions to determine the above as well as to gather an impression of the candidate's character, political affiliation, and intelligence. They look for any inconsistencies, verify details given by the applicants, and check on the reputation of the referring commander and his area's level of need. A medical interview is performed by the training staff at Thal. No written format was available for these interviews. Agreement between medical and nonmedical interviewers is achieved frequently only after prolonged discussion and evaluation of test results by an admission committee comprised of representatives of both groups.

Final selection has succeeded in achieving a good representation of all political parties and areas within the country. Generally the pool of applicants has been several fold the number of positions available and the most recent announcement for the eleventh Freedom Medicine class has received over 300 applications. The origin of Freedom Medicine graduates is from 26 of 29 provinces of Afghanistan (Figure 2) and is approximated in the following listing of their residence at acceptance into training.

Original
residence of
FM student
paramedics

February, 1989 FM 1 FM2 FM3 FM4 FM5 FM6 FM7 FM8 Total

Badakhshan			1			3			4
Badghees					1	1			2
Baghlan	1		1		1	2	3	1	9
Balkh		3	1	1					4
Bamyan		3	1	1	1		1	1	8
Farah		1							1
Faryab				1		1	1		3
Ghazni	1						1	3	4
Ghovr								1	1
Helmand							1		1
Herat	2		2	2	2		2		
Jozjan			1						1
Kabul	1	1	1	2		1		2	8
Kapisa					1	2	1		4
Kunar				1				1	2
Kunduz		1			1			1	3
Laghman						1			1
Logar		1		1		2	2		6
Maidan	1				1	2			4
Paktia	1		3	1	3	3	1	1	13
Parvan	1	1	4	5	2		5	1	19
Samangan						2			2
Takhar		3	2	1	3	2			11
Uruzgan					1				1
Vardak	2					1		3	6
Zabul					1				1

Total

133

Training Staff. Shortly after initiation of the program it was decided that Afghan physicians would be the most appropriate training staff eliminating the need for translation into Persian. Moreover, they offered the advantages of the traditional role-model of teachers in Afghan culture and the ability to treat and teach in the clinical setting. Nevertheless, the use of appropriate expatriot volunteers as trainers was anticipated and Afghans were recruited for the training staff to translate and teach English. The combination of stable Afghan trainers with relatively long term western volunteers has strengthened the program but created differences contributing to the resignation of five Afghan physicians and two translators. The prompt recruitment of two additional physicians and two translators with interim teaching by American volunteers with translators from the Peshawar office provided uninterrupted instruction.

A particular strength of the program has been the continued involvement of Dr. Hassham, an Afghan surgeon based in the

hospital and Dr. Marghalara, a female Afghan Ob-Gyn specialist based in the clinic. Both provide didactic and practical training during the core curriculum and clinical rotations. The difficult role of teaching Ob-Gyn to Afghan males has been minimized by the acceptance of Dr. Marghalara by students and patients alike.

Curriculum and Text

Curriculum. The current curriculum consists of a tightly orchestrated 26-week training program with an 18-week didactic program at the Freedom Medicine facility in Thal followed by a field practical examination. Four 2 week clinical rotations and a final examination follow the didactic session.

After initial instruction in anatomy and the techniques of taking a patient history and physical examination, students are taught the commonest diseases organized by body system and arranged in a hierarchy with the most common diseases introduced first. Included in the first segment of the program is a clinic experience starting in the third week. Students spend 2.5 hours per day initially grouped four students per patient and then two per patient along with a trainer-provider. Generally, two patients per student group are seen each day. The curriculum appears to be very well organized with a total of 48.2 hours of scheduled activity per week including physical exercise and nonmedical subjects such as English and mathematics (primarily dose calculation). The first 18 weeks of training for the FM 9 class included 867 hours of both didactic and practical instruction and was partitioned as follows:

First Aid/Trauma/wound care = 130.5 hours(15.1%)
English/Math = 79 hours(9.1%)
Medications = 99.4 hours(11.4%)
Systems(anatomy/physiology/pathology) = 108 hours(12.4%)
 Including Respiratory = 10.5 hours(9.7% of systems)
 Cardiovascular = 8.5 hours(7.9%)
 Gastrointestinal = 12 hours(11.1%)
 Skin = 10 hours(10.8%)
 ENT = 7 hours(6.5%)
 Eye = 10 hours(9.3%)
 Nervous = 9 hours(8.3%)
 Genito-Urinary = 6 hrs(5.6%)
Communicable disease/public health including malaria = 7 hours (.8%)
Ob-Gyn = 12 hours(1.4%)
Pediatrics = 6.5 hours(0.75%)
Written examinations, field exams, review = 22 hours(2.5%)
Other(including clinic) = 402.6 hours(46.4%)

The current curriculum for FM10 includes 806.3 total hours or 45 hours per week, somewhat less than FM9. A reduction in first aid/trauma/wound management to 111 hours(13.8%) and increase in some systems including respiratory, cardiovascular, gastrointestinal, and ENT has been made. Pediatrics is still represented by 7.5 hours(0.93%).

Recently, the 18 week segment of the curriculum for FM 10 has been entered in matrix form into a computer program by the information management coordinator that will allow for easy tabulation of various subjects by theory or practical training for any one week or summary period.

"Suprise practicals" and scheduled practical examinations include realistic settings of war-time trauma utilizing moulage and requiring triage and consideration for personal risk by the student.

While visiting the Thal facility one of the evaluators(M.D.) was asked to teach 5 hours of the respiratory system section due to the recent departure of the training staff. This experience revealed a very high level of motivation on the part of the students including considerable mastery of material prior to class and their willingness to participate in an interactive, Socratic method of teaching. They demonstrated a general desire for more detail than that provided in the Freedom Medicine text which is used by instructors almost exclusively in their prepared lecture materials. While almost all students took notes during class, this was frequently on various loose small note paper.

Freedom Medicine Text. The completion and translation of a text by Freedom Medicine volunteers and staff provides the core curriculum and teaching outline for both students and training staff. The English version is clearly written, well illustrated, and appropriately devoid of needless medical terminology. Although considered as a reference text for students after graduation, it appears perhaps too rudimentary in many respects for that function. Cross-references within the text do not give page numbers and the nonsequential pagination of the text makes use of the index almost impossible. The addition of chapter numbers to each page would simplify this without requiring reindexing.

The text in general might profit from more emphasis on differential diagnosis for clinical presentations such as cough and hemoptysis, chest pain and shortness of breath, and others similiar to the algorithym included for diarrhea.

Specific suggestions for the next edition of the text include careful editing with inclusion of important clinical features such as hemoptysis in the presentation of tuberculosis and a corrected description of rales. Elimination of duplicate illustrations(inguinal hernia), size reduction of other illustrations(lymph node anatomy and pediatic examination) should be done. A back-translation of future editions should be considered to verify the accuracy of the primary translator and fidelity of the material.

The chapter on preventive medicine could profit from some cultural adaptations and additional detail. Child growth parameters needs reevaluation since only mid upper arm circumference measurements(MUAC) are recommended(Ch 5,p10). Although MUAC screening only is recommended by the Coordinating Medical Committee in Peshawar, and appeared to adequately reflect gross malnutrition in refugee populations(MMWR January 9, 1989,37: 785-787), an International Rescue Committee assessment of Afghan refugee child health status from 1987 showed a 2.6x higher definition of malnutrition($\leq 80\%$ mean) defined by MUAC scores than by weight-to-height measurements. The latter remains a standard that will command the attention of emergency relief programs. Additional justification for weight measurements include the necessity for calculation of pediatric dosages instead of "the doctor's order will say..."(Chapter 9,p3).

A list of drugs mentioned in the text with their primary use, action, dosage, and perhaps familiar brand names at the end of the text would be useful along with equivalents that may be commonly available in local bazaars. Given the necessity for updates in therapies due to changes in supply or treatment rationale, some consideration should be given to providing medics with a loose leaf version of the text in the future. The ability to supplement this with handouts and personal notes kept in a semipermanent manilla portfolio style binder might be considered.

Clinical Training. Clinical training during the core 18 week curriculum is primarily in the outpatient clinic. This clinic was designed to represent the minimal conditions that would most likely be experienced inside Afghanistan such as dirt floors, lack of running water, poor lighting, and cold interiors. There was no infant scale for growth measurements nor were there any public health posters or teaching materials seen. Students are given some materials to use for instructing waiting patients in healthful practices. This paradigm appears to have been appropriate given the original intention of training a paramedic who would be mobile and frequently be practicing in temporary quarters with little or no support staff. This situation appears to have improved for many paramedics even before the cessation of fighting.

Students are taught to take a complete review of system and perform a complete physical excluding examination of the rectum and genitalia. They record their findings on a well designed Persian/English form that they use to recite their findings to their clinic preceptor. Patients are sent to the hospital for selected laboratory tests and x-rays or else sent into Thal where these services may be privately purchased. When sent to the hospital, tests are performed in a timely manner and sent back to the clinic with the patient for incorporation into a final plan of clinical management. One member of the evaluating team worked in the clinic precepting FM 10 students with the assistance of a translator and subsequently used clinical presentations from the morning clinic during an afternoon lecture on respiratory disease.

Clinical Rotations. Four rotations of two weeks each for groups of five students are arranged during the last two months of the program including

(1) a clinic rotation in Thal where students see patients followed by presentations to an attending physician for a total of 5 hours each morning. During afternoons oral case histories are discussed on each of the systems with discussions on differential diagnosis.

(2) a hospital rotation in Thal where students make rounds, see patients in the emergency room and perform suturing, and provide patient care and change dressings on the ward. Students work in shifts permitting more direct patient contact with fewer students. However, physician or supervision by the expatriot nurse practitioner is not always present.

(3) a dental clinic rotation with an Afghan dentist, Dr. Balouch, at the Dental Clinic for Afghans in University Town in Peshawar. Students are taught principles of oral examination, dental anesthesia, and tooth extraction. A longer elective period in dental procedures and a dental paramedic program(see below) are also available to students.

(4) a field clinic rotation where war-related injuries as well as common nontraumatic complaints are likely to be seen. At the present time this is only available in a clinic outside of Jalalabad where approximately 2000 patients/month have been seen by FM 8 students and one doctor-preceptor. This clinic was not observed by the evaluation team. Other clinic sites utilized for training have included Garam Cheshna beyond Chitral at the frontier, a seasonal field site at Gabor in the Chitral district, and Jaji inside Afghanistan in Paktia province. In conjunction with these clinics, Freedom Medicine runs a cross-border ambulance service that provides students with experience in patient stabilization, transportation, and transfer to ambulances of the International Committee of the Red Cross, the referral medical provider.

Dental paramedic training program. Freedom Medicine supports a six month dental training program at the Dental Clinic for Afghans in University Town, Peshawar. Didactic and practical training is provided in a dental clinic and two small classrooms recently constructed for this program. This facility and its curriculum was not evaluated by the evaluation team. Beginning with FM9 ten students were selected from the general applicant pool specifically for this training. Upon graduation, these dental paramedics will go to work in already established clinics to enhance clinic services. An evaluation of this program will be performed shortly by a local Peshawar dentist, Dr. Jan.

Level of performance, location, and evaluation of graduates

Numbers of students and functional graduates. Following the first two sequential classes, an overlap of two months permitting

training of three classes a year was initiated. This required continuous didactic instruction with an interruption in the flow of students on rotation. At one point, three simultaneous classes supplied continuous students on rotation but created considerable pressure on training staff. The training and administrative staff has decided that three classes per year, each with 20 students, is the maximum number of trainees feasible.

Since its inception, the Freedom Medicine training program has enrolled 134 students in its first ten classes and graduated 124 paramedics from its first eight graduating classes. Currently, 38 students are enrolled in two classes. Ten students or 7.5% have not graduated, 7 for academic reasons and 3 for disciplinary problems. From the 124 paramedics graduated as of December 1988, 7(6%) did not enter Afghanistan: 3 due to blockage of their travel routes by winter weather, one was unable to return to his area for political reasons, 2 were dismissed for unreliability including dual employment with another PVO, and one who is currently employed by the training staff and Peshawar office in a variety of roles.

As of December, 1988, of the 117 paramedics who entered Afghanistan 6(5%) were not operating clinics for a variety of reasons including one reported paramedic death, family obligations in Pakistan(1), political discord with a commander(1), theft of supplies(2), and lack of cooperation with Freedom Medicine(1). A target goal of 80% of functioning paramedics inside Afghanistan previously set by Freedom Medicine and has been exceeded.

Verification of paramedic activity-monitoring. Monitoring, the visual inspection clinics inside Afghanistan by nonmedical observers, has been performed by Freedom Medicine since 1986. This activity became well organized in July of 1988 with the recruitment, training and supervision of eight monitors coordinated by Bruce Wannell. Since September 1987, 16 monitoring missions have been completed as well as one co-sponsored mission with the Committee for Medical Coordination(CMC). A total of 46 clinics out of 102 have been verified and this included 75% of those that were functioning for six months or more by the end of 1988. Monitors also function to resupply clinics, assess the stability of the region, and frequently document social, political, and economic activities that may impact on clinic function. Monitors undergo training which includes interviewing skills, use of the monitoring form(109) questions, map-making and reading, and report writing. Another week long training session is being planned by Mr. Wannell.

Paramedics are instructed to fill out a uniform clinic log listing the age, sex, diagnosis, date, and treatment of patients seen. These logs called "Green Books" are provided to all basic health workers, midlevel, and advanced health workers who must present the completed book in order to be resupplied. Paramedics submit the books to Freedom Medicine where their authenticity is evaluated. This data, consisting of 40 books completed by Freedom

Medicine paramedics has been entered into a centralized computer program (R-Base) at the CMC. No report generation has been possible as yet. One evaluation team member(MD) spent several hours working with the data base at CMC and did get crude data reports on some clinics. Little of this data had been coded and no summary figures of either coded or uncoded data could be obtained. The data has been copied and is now on a Freedom Medicine computer where the information management coordinator, Timur Friedman, is presently trying to access the data. This data has limited value because it can be created by the paramedic at will and diagnoses are not validated. Nevertheless, it provides an assessment of appropriateness of treatment, drug prescribing habits, and patterns of disease and profiles of patient populations seen by each paramedic.

In summer 1988, Helen Murphy, a University of Hawaii public health student undertaking a field placement with Freedom Medicine, completed a preliminary analysis of a manual tally of 4 paramedics green books to assess the kinds of conditions they were seeing. She found 88% of diagnoses were medical and 12% were surgical/trauma related including fracture(2%), debridement and circumcision(7%), and burns(3%). Other presenting diagnoses included gastritis/gastroenteritis/parasites/syentary(19.9%), URI(8.1%), LRI(8.6% including 1.1% suspected or confirmed T.B.), eye complaints(4%), genitourinary complaints(8%), skin diseases(7%), communicable diseases including presumptive malaria(3%). Her analysis included children(16%), women(12%), men(72%) and overall 54% were noncivilian(Mujahideen). Other programs working inside Afghanistan have reported surgical/trauma related cases at lower levels: 2.3% for Medicin Sans Frontier and 3.5% for International Medical Corp(IMC).

Debriefing interviews at present are the primary means of evaluating returning paramedics. A nonmedical debriefing by FM monitors includes demographics of home village including number of households, mosques, refugee households, village damage from the war, main economic activities of the village, schools, political control of village, access routes and transportation costs, and presence of other health workers or pharmacy shops. Common contacts in the village are inquired about and monitors look for inconsistencies and points requiring confirmation. Upon completing his report, the monitor may recommend resupply or clinic expansion.

A medical debriefing is performed by the Thal training staff (in the past at least two Afghan physicians). The clinic description is sought as well as the distance of the paramedics living quarters. Details on clinic personnel, traditional healers, and clinic patient load are sought. The paramedic is also asked about the number of deaths attended and in the community, cases referred, unusual cases(little room exists on the form for answers to this open-ended question), and estimates of malnutrition. Knowledge of the medical systems e.g. respiratory, cardiovascular, etc. as taught is documented through interview however no specific questions were listed on the form.

A total of 32 medical debriefings were available for inspection of the evaluation team. A medical refresher consisting of additional supervised clinical work was recommended for 20 paramedics, ranging from 2 weeks to 2 months. The resupply of 5 without further training and 5 for dental training, at their own request, was recommended. All paramedics debriefed indicated that they intended to continue their work and most requested additional training, most commonly in medicine, dentistry, and surgical techniques in decreasing order.

A clinical evaluation of each returning paramedic is performed in Chitral where he works in a clinic setting with one to three providers for 12 days. One of the providers, a nurse midwife, was interviewed and stated that the paramedic evaluation is dependent upon patient flow since clinical encounters with an evaluator constitute the basis of the evaluation. Although she stated that she may in some cases be the only evaluator, she is not capable to fully assess all of the skills of a paramedic due to her specialized training. A nonspecific summary sheet of paramedic performance was noted by the evaluation team. Final recommendations for resupply or clinic expansion are made by a FM committee after reviewing the results of all interviewers and reviewers. The only medical refresher currently available for paramedics is to work in a clinic setting in Thal closely with a physician. They are able to sit in on any student lectures currently in progress.

Resupply and Supply of Paramedics. Resupply materials are presently donated for clinics inside from the Swedish Committee. Several problems have been encountered with this system:

1. It takes a paramedic approximately one month to receive supplies from the Swedish Committee, during which period he must be supported and may be unproductive;

2. Swedish Committee packaging is insufficient to withstand the trip into Afghanistan, and Freedom Medicine has to provide boxes and repacking all supplies before deploying them into the field; and

3. Although the Swedish Committee provides some support for transportation of materials into Afghanistan, it is not sufficient to cover all transportation expenses.

CONCLUSIONS.

The Freedom Medicine curriculum is a well organized, logical teaching program with a particular emphasis on advanced first aid and trauma management for a war-time scenario. Although the cessation of the war can be anticipated soon, the likelihood of land mine injuries with massive population shifts and the possibility of continued domestic fighting, justify no further reduction in the first aid/trauma component of the curriculum at this time. Returning paramedics should be quizzed specifically on whether they have performed amputations and other surgical techniques taught with and without the presence of a physician.

Based on debriefing interviews, one other paramedic program plans to stop teaching amputation. Given the distribution of diseases and patients mentioned above there appears to be some under-representation of differential diagnosis, public health/communicable disease and pediatrics in the text and curriculum. There is ample teaching time to supplement these areas, and with the arrival of an assistant project director trained in public health, it can be anticipated that these areas will be strengthened.

Student selection appears to have been highly appropriate as reflected in the high rate of graduating and functioning paramedics. Although the students are rarely fluent in English, access to an English translation of the text was requested by at least one student and seems reasonable. More importantly, additional resource materials in Persian should be made available. Students appeared eager for and capable of learning more detailed information than that given in their text.

The teaching of clinical outpatient medicine in a minimalist clinic setting may be less appropriate now that paramedics have established permanent clinics in Afghanistan. The Thal clinic facility is suboptimal for performing an adequate patient examination due to the poor lighting and cold temperatures. The presence of separate medical surgical emergency rooms is neither optimal for patients or students.

Neither adjunct reference materials for students nor follow-up information of graduates activities in Afghanistan appeared available (both recommended by the last evaluation team) although the latter has been partially summarized manually and computerized summaries can be anticipated soon.

Medical debriefing of paramedics appears to have been rather subjective although an interview by two physicians and use of a rather nonspecific check list have attempted to address this issue. The refresher process recommended for a majority of paramedics has no formalized didactic or self-instructional component that could be useful and conserving of returning paramedics unused time.

Projected need for paramedics. Although several health workers outside Freedom Medicine suggested that a surfeit of midlevel health providers exists at this time this is doubtful. If one assumes that the current Afghani physician supply is two-thirds that of the prewar era(1000) and that 400 mid or advanced level paramedics have been graduated by all training programs combined, the provider to patient ratio for a post-war resident+refugee population is 1:10,700 people. Even the 1992 level of basic health workers(1900) projected by Management for Health Sciences team will not adequately fill this gap since they are minimally trained. Despite the stated intentions of returning paramedics to continue their work, a higher attrition rate may be anticipated once repatriation of refugees and reconstruction of Afghanistan provides other employment opportunities. ✓

RECOMMENDATIONS.

Curriculum.

1. Editing and additions to the FM text as detailed above should be considered. The development of additional materials on specific system diseases can be handed out with lectures and will help to develop future text expansion.

2. Students should be provided with bound notebooks for note taking in class. Alternatively, provision of additional lecture materials with room for student notes could be considered.

3. Consideration should be given to prior distribution of a list of key questions for each lecture since students appear to read the text prior to class. Similarly, handouts of case studies with questions such as those given in the instructors' manuals of the Medex series would stimulate post-lecture discussions of assigned materials among students a brief interactive review at the next lecture was effectively used by the reviewing team when teaching.

4. A small resource library for students should be made available and could be located in the classroom. It might include "Where there is no Doctor", available in Persian, some Persian anatomy or medical texts, public health teaching materials, and English translations of the Freedom Medicine text.

5. Additional material on pediatrics including child development monitoring, childhood diseases, public health measures (see Medex series), and differential diagnoses of common clinical presentations should be incorporated in the curriculum.

6. Although not essential for patient treatment, strong consideration should be given to improving clinic lighting, heating, accessibility of spittoons, and presence of public health education material.

7. Although creative and no doubt inspiring, the current format for the field practical examination, a battlefield simulation, may no longer be desirable should the war in Afghanistan come to a close. A mass casualty situation such as a bus wreck due to a land mine could offer a parallel civilian simulation.

8. Students should be introduced to the Greenbook patient log during the first few weeks of clinic and be encouraged to enter their student encounters. Books should be collected at 18 weeks and at the end of rotations and graded for completeness and internal consistency. The value of the Greenbook should be discussed with them and if possible, they should be given a summary of their student Greenbook experience.

9. The use of diagnosis frequencies, patient sex and ages available from summarized Greenbook data should be considered in designing future curriculum changes.

10. Development of an advanced curriculum including more detail on medical diseases, their differentiation, basic laboratory, clinic and basic health worker supervision, public health, pharmacology, and pediatrics should be considered for paramedics who have worked for 6-12 months or more in a clinic setting. Estimated duration of this course is 3 to 4 months.

Paramedic evaluation.

1. Medical debriefing of paramedics should include more specific and consistent clinical questions and the use of case presentations(see Medex instructors' manuals). Evaluation of paramedics in Chitral should be done by all providers using a skills list such as that provided by Helen Murphy (October, 1988) along with a summary recommendation to the Freedom Medicine office.

2. Refresher training should be more directed. Although a major undertaking, programmed modules on history & physical taking, clinical disease by systems, differential diagnosis, and public health could be developed and self-administered. Since paramedics frequently find themselves in Peshawar awaiting resupply, this would utilize their time efficiently and might correct specific deficiencies not currently addressed. Development of such modules, perhaps computer based, could be shared by other paramedic training programs to best advantage.

3. Integration of the Greenbook data into the evaluation process and feedback to the paramedic may be possible if adequate data entry personnel are budgeted for this function. While a paramedic is being evaluated, his Greenbook data could be entered and checked for consistency between diagnosis and treatment. The disease patterns and drugs per diagnosis for individual providers compared to all paramedics could be shared with him before resupply is completed and perhaps modify his future drug utilization.

4. The crude projections of health providers made here, the acknowledged need for paramedics to work in teams of two rather than the solo provider clinics common now, and the continued high degree of interest from applicants justifies the continued training of 40 to 60 graduates from the Freedom Medicine program per year for the next two years. More sophisticated projections available from other sources may require revision of this recommendation.

Resupply Activities.

1. Arrangements to facilitate and resupply activities should be explored. Alternatives to utilizing the Swedish Committee for Pakistani facility supply should be identified, costed out, and compared to current costs to see if savings can be realized. The potential for loss of "good will" from not using the Swedish Committee as well as their "in-kind" contribution to Freedom Medicines required nongovernmental support should also be considered in any alternative selection processes.

2. The inevitable return of health care delivery and supply to local resources in Afghanistan should be anticipated. Specifically, monitors could purchase representative available medications which could be evaluated by Freedom Medicine staff or Swedish Committee analyses. Since patients and paramedics are currently relying on local sources when regular supplies are exhausted, a list of available useful (and useless) preparations would be of immediate value.

FUTURE OPTIONS

A planning session by Freedom Medicine Staff in August of 1988 indicated priorities of which a refresher program and physician assistant, paramedic training center was foremost. Resettlement clinics, midwife training, and medical trainer training (paramedic health education in primary schools and public health specialists) were considered priorities. Incorporation of these concepts are considered in the following:

1. Continue management of the Thal training facility with a continued output of 40 to 60 paramedics per year, strengthen clinic facilities, improve paramedic evaluation, and develop a paramedic refresher curriculum. A regional approach to health care within Afghanistan would be difficult given the selection process of students in the past. Expansion of the Thal clinic could provide adequate opportunity for paramedic evaluation eliminating the need for the Chitral facility. Since the latter provides important primary care services it would have to be managed by another PVO or Afghan organization rather than abandoned.

2. Continue management and improvement of the Thal and Chitral facilities with the continued administrative and logistical liabilities currently being experienced.

3. Development of an advanced training curriculum as well as refresher curriculum for paramedics and a deemphasis on hospital and clinic management in Thal. The latter could be effected by turning over the Thal facility to the Afghan Alliance Health Committee and Management for Health Sciences, a concept currently under consideration by the Project Director. A regional approach to future health needs in Afghanistan is possible with the development of an advanced program for current paramedics in the northern provinces and basing the project in Chitral, a projected gateway for refugees returning to this region. An advanced training program such as this could be open to paramedics from all training programs operating in a defined region. Use of Afghan physicians as trainers after they themselves are trained, could improve the physician-midlevel-practitioner interaction, thereby securing a place for well-trained paramedics/physician assistants in the future health-care system of Afghanistan. In addition, horizontal integration of these trainees with vaccinators, BHU workers, and midwives would be possible. Teams of midlevel practitioners and their physician instructors could be resettled in Afghanistan with continued support from Freedom

Medicine primarily for their public health/BHU worker supervision. Ultimately, fee for service or support from a centralized Afghan health authority would sustain them. Continuing education and monitoring would be provided by Freedom Medicine.

There was considerable discussion about this concept with the Freedom Medicine Project and Assistant Project Directors. Advantages were the emphasis on training rather than hospital and primary care for a resident refugee population that ultimately will move, consolidation of the Freedom Medicine program (percieved as an urgent need), the opportunity for more interaction with trainees of other programs, and the opportunity to provide service to the anticipated repatriation of refugees and their movement through Chitral. Perhaps most importantly, the act of turning over a major facility (Thal) to Afghan control would improve perception of western PVOs and increase the likelihood of acceptance for future programs.

The liabilities of this program include the geographic inaccessibility of Chitral, the perception that Freedom Medicine is abandoning its Thal facility, the necessity for recruitment of a Western physician medical director to be based in Chitral, lack of visibility to other organizations in Peshawar, and the difficult termination of staff and facilities in Peshawar that would have to preceed any development of an advanced training curriculae. The prerequisites and requirements of this program were outlined during this discussion.

OVERALL RECOMMENDATIONS

Organizational re-evaluation and restructuring is necessary. A number of key personnel must be replaced due to projected departures. The external situation in Afghanistan is changing dramatically and the refugee situation is anticipated to follow. The internal structure of Freedom Medicine is complex and dependent upon a Project Director with a long organizational history and familiarity with all its aspects. The success of the organization to date has been due as much to staff affection for the Director as managerial skill. It would be exceedingly difficult for anyone other than the current directors to run Freedom Medicine as it is currently structured.

1. Evaluate current and proposed activities in order to assess which are most feasible given human and physical resources and which activities represent the best ways to fulfill organizational goals. Activities which build on the organization's strengths and track record (innovative training of paramedics) and also develop for Freedom Medicine a unique "market niche" are most likely to succeed. Decisions which improve credibility with leaders of local health-care consumers and cross-border planners of health care should be given priority. Consideration should be given to decisions that will enhance opportunities for alternative funding sources and affiliations with supportive institutions and agencies such as

those planning reconstruction health programs, medical schools, and schools of public health.

2. Attempt to contain "organizational sprawl" no matter which option is selected in order to facilitate communication and consolidate activities.

3. Recruit replacement staff in key positions immediately. If possible, try to fund them at levels which can attract qualified people who are willing to make no less than a one year commitment. Use the Home Office and selected staff alumni or other associates (who are given the position description and requirements) to more effectively screen applicants and orient new staff to be sure they are appropriately qualified and their expectations are realistic. It may be necessary to extend some key staff appointments to ease the transition.

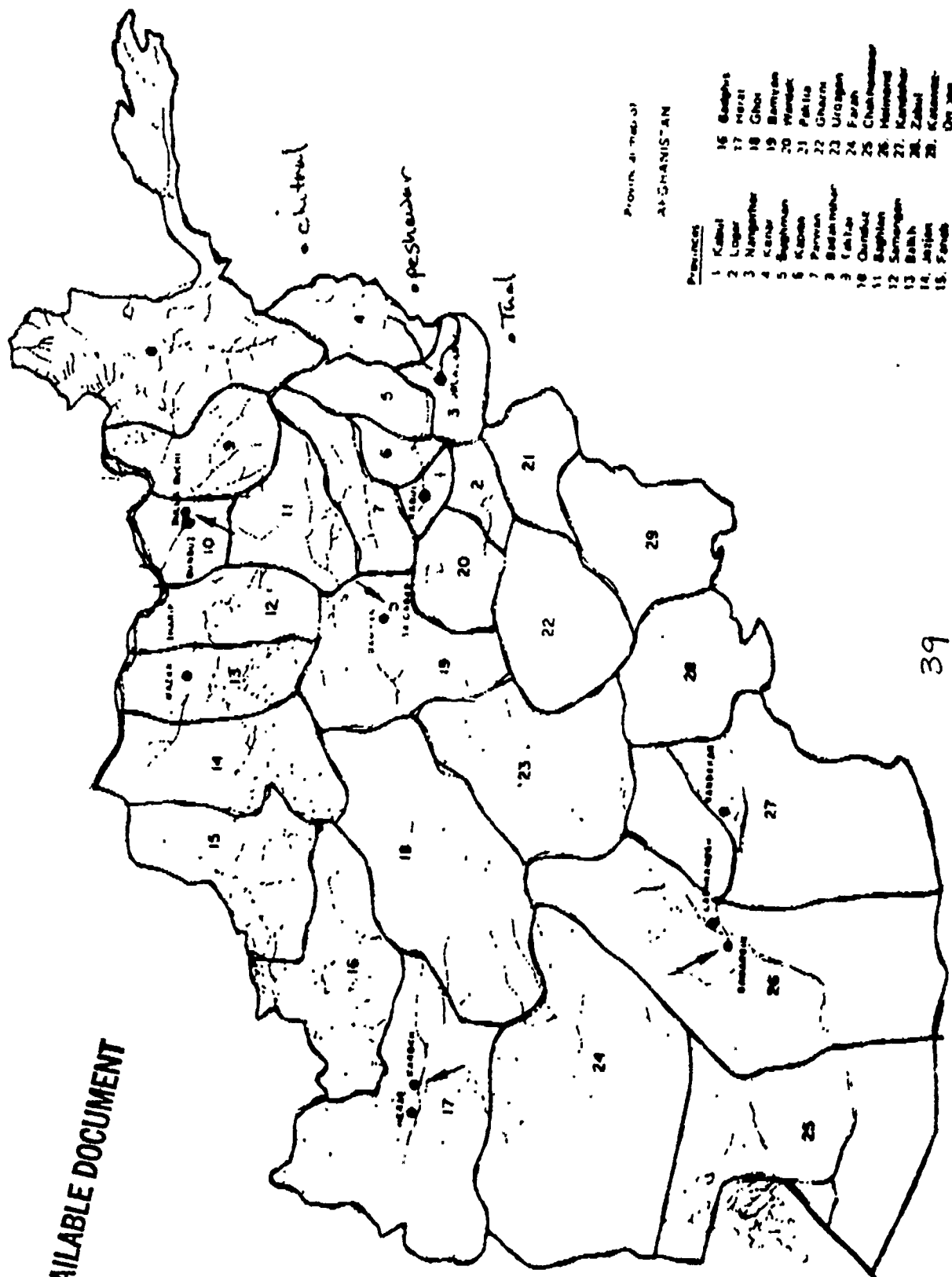
4. Talk to funding sources(USAID) before making program changes to assure continuation of funding.

Freedom Medicine, February 1989



Figure 2 Provincial Map of Afghanistan

BEST AVAILABLE DOCUMENT



APPENDIX 1

Interviews with Outside Organizations

Tom Eighmy, demographer and USAID project officer, Islamabad, Pk.

Dr. Lillian Rachlin, Medical Director, International Medical Corps, Peshawar, Pk.

Jan Goodwin, Director, Save the Children U.S., Peshawar, Pk.

Dr. Haider Raza, Medical Director, Swedish Committee, Peshawar, Pk.

Anibal Mejia, Deputy Team Leader, Management for Sciences for Health, Peshawar, Pk.

Dr. Sharon McDonald, International Rescue Committee and World Health Organization, Peshawar, Pk.

Dr. Christian Gravet, Director, Medical Training for Afghans, Peshawar, Pk.

Dr. Phillipe Truze, Medical Director, Afghanistan Vaccination and Immunization Center, Peshawar, Pk.

Jeffrey C. Paulson, Executive Director, Coordination of Medical Committees, Peshawar, Pk.